03050110-020

(Congaree Creek)

General Description

Watershed 03050110-020 is located in Lexington County and consists primarily of ***Congaree Creek*** and its tributaries. The watershed occupies 91,334 acres of the Sandhills region of South Carolina. The predominant soil types consist of an association of the Lakeland-Blaney-Fuquay series. The erodibility of the soil (K) averages 0.10 and the slope of the terrain averages 5%, with a range of 2-15%. Land use/land cover in the watershed includes: 56.3% forested land, 16.2% urban land, 16.1% agricultural land, 6.0% forested wetland (swamp), 3.9% barren land, 1.3% water, and 0.2% nonforested wetland (marsh).

West Fork and East Fork join to form Scouter Branch, which flows through Redmond Pond and Shealy Pond to enter Congaree Creek. Congaree Creek then flows through Hunt Pond before accepting the drainage from Red Bank Creek (Turkey Creek, Crystal Lake, Lick Fork Branch, Pole Branch). Second Creek (Hunt Branch, Bear Creek, Reedy Branch) flows into First Creek, which then drains into Congaree Creek. Congaree Creek also accepts the drainage from Savana Branch (Pitts Lake), Sixmile Creek (Lake Caroline), and Dry Creek. There are a total of 119.8 stream miles and 770.7 acres of lake waters in this watershed, all classified FW. The Congaree Creek watershed drains into the Congaree River near the City of Cayce. Another natural resource in the watershed is the Peachtree Rock Nature Preserve, located at the headwaters of Hunt Branch.

Surface Water Quality

Station #	Type	Class	Description
C-580	BIO	FW	Red Bank Creek at road connecting SR 1260 & SR 243
C-066	S/W	FW	Red Bank Creek at S-32-244
C-067	S/W	FW	Red Bank Creek at Sandy Springs Road between S-32-104 & SC602
C-565	BIO	FW	Congaree Creek at SR 34
C-061	S/W/BIO	FW	Savana Branch at S-32-72 1.7 miles NNW of South Congaree
C-008	P/W	FW	Congaree Creek at US 21, at Cayce water intake
C-025	S/W	FW	Lake Caroline spillway at Platt Springs Road
C-005	S/W	FW	Sixmile Creek on US 21, S of Cayce
C-070	W/INT	FW	Congaree Creek at S-32-66
C-583	BIO	FW	Second Creek at SR 647

Congaree Creek – There are three SCDHEC monitoring sites along Congaree Creek. This is a blackwater system, characterized by naturally low pH and dissolved oxygen concentrations. Although pH excursions occurred, they were typical values for these systems and were considered natural, not standards violations. Aquatic life uses are fully supported at the upstream site ***(C-565)*** based on macroinvertebrate community data. At the midstream site ***(C-008)***, aquatic life uses are fully supported. There is a significant increasing trend in pH, which suggests changing conditions in this portion of the stream. A significant increasing trend in dissolved oxygen concentration and significant decreasing trends in five-day biochemical oxygen demand and turbidity suggests improving conditions for these parameters. Recreational uses are fully supported at this site. Aquatic life and recreational uses are fully

supported at the downstream site ***(C-070)***. A significant decreasing trend in turbidity suggests improving conditions for this parameter.

Red Bank Creek - There are three SCDHEC monitoring sites along Red Bank Creek. This is a blackwater system, characterized by naturally low pH and dissolved oxygen concentrations. Although pH excursions occurred, they were typical values for these systems and considered natural, not standards violations. At the upstream site ***(C-580)***, aquatic life uses are fully supported based on macroinvertebrate community data. Aquatic life uses are fully supported at the midstream site ***(C-066)*****.** Recreational uses are fully supported at this site; however, there is a significant increasing trend in fecal coliform bacteria concentration. Aquatic life uses are also fully supported at downstream site ***(C-067)*** and a significant decreasing trend in turbidity suggests improving conditions for this parameter. Recreational uses are partially supported at this site. Prior to 2001, ***C-066 and C-067*** were secondary monitoring stations and sampling was intentionally biased towards periods with potentially low dissolved oxygen concentrations.

Savana Branch (C-061) - Prior to 2001, this was a secondary monitoring station and sampling was intentionally biased towards periods with potentially low dissolved oxygen concentrations. Aquatic life uses are fully supported based on macroinvertebrate community data. This is a blackwater system, characterized by naturally low pH and dissolved oxygen concentrations. Although pH excursions occurred, they were typical values for these systems and considered natural, not standards violations. Significant decreasing trends in five-day biochemical oxygen demand and turbidity suggest improving conditions for these parameters. Recreational uses are partially supported, due to fecal coliform bacteria excursions.

Sixmile Creek (C-005) - Prior to 2001, this was a secondary monitoring station and sampling was intentionally biased towards periods with potentially low dissolved oxygen concentrations. Aquatic life uses are partially supported due to dissolved oxygen concentration excursions, compounded by a significant increasing trend in total suspended solids. This is a blackwater system, characterized by naturally low pH and dissolved oxygen concentrations. Although pH excursions occurred, they were typical of values seen in such systems and considered natural, not standards violations. A significant decreasing trend in five-day biochemical oxygen demand suggests improving conditions for this parameter. Recreational uses are not supported due to fecal coliform bacteria excursions. In addition, there is a significant increasing trend in fecal coliform bacteria.

Lake Caroline (C-025) - Prior to 2001, this was a secondary monitoring station and sampling was intentionally biased towards periods with potentially low dissolved oxygen concentrations. Aquatic life uses are not supported due to total phosphorus concentration excursions. Significant decreasing trends in five-day biochemical oxygen demand and turbidity suggest improving conditions for these parameters. Recreational uses are not supported due to fecal coliform bacteria excursions.

Second Creek (C-583) - Aquatic life uses are fully supported based on macroinvertebrate community data.

Natural Swimming Areas

FACILITY NAME / ***RECEIVING STREAM***	***PERMIT #*** / ***STATUS***
CONGAREE GIRL SCOUT CAMP WEST FORK	32-N05 ACTIVE
YMCA LEXINGTON CAMP RED BANK CREEK TRIBUTARY	32-N10 ACTIVE

Groundwater Quality

Well #	Class	Aquifer	Location
AMB-042	GB	MIDDENDORF	HIDDEN VALLEY

NPDES Program

Active NPDES Facilities

RECEIVING STREAM / ***FACILITY NAME*** / ***PERMITTED FLOW @ PIPE (MGD)***	***NPDES#*** / ***TYPE*** / ***COMMENT***
RED BANK CREEK LEXINGTON COUNTY JOINT/OLD BARNWELL RD PIPE #: 001 FLOW: 0.8	SC0023680 MINOR DOMESTIC Proposed to be eliminated and tie into City of Cayce in 03050110-010
RED BANK CREEK TRIBUTARY CAROLINA MATERIAL/I-20 PIT PIPE #: 001 FLOW: M/R	SCG730168 MINOR INDUSTRIAL
FIRST CREEK CWS/GLENN VILLAGE II SD PIPE #: 001 FLOW: 0.1284	SC0030651 MINOR DOMESTIC
BEAR CREEK LEXINGTON COUNTY/EDMUND LANDFILL PIPE #: 001 FLOW: 0.028	SC0045110 MINOR INDUSTRIAL
SIXMILE CREEK SOLAR FARMS PIPE #: 001 FLOW: M/R	SC0039021 MINOR INDUSTRIAL
SIXMILE CREEK PARKWOOD OF CAROLINA PIPE #: 001 FLOW: 0.035	SC0030473 MINOR DOMESTIC PROPOSED TO BE TIED IN

Nonpoint Source Management Program

Land Disposal Activities

Landfill Facilities

LANDFILL NAME *FACILITY TYPE*	*PERMIT #* *STATUS*
LEXINGTON COUNTY TRANSFER STATION DOMESTIC	321001-1101 (DWP-127) CLOSED
LEXINGTON COUNTY LANDFILL C&D	321001-1201 (CWP-044) ACTIVE
12TH ST. EXTENTION LANDFILL C&D	322902-1301 ----------
CAROLINA MATERIALS CORP. C&D LF C&D	322611-1201 ----------
BRAKEFIELD CONSTRUCTION C&D	322617-1201 ----------
US SILICA LANDFILL INDUSTRIAL	IWP-063 ----------
OWEN ELECTRICAL STEEL CO. INDUSTRIAL	IWP-126 ----------
RED BANK DUMP DOMESTIC	---------- CLOSED
U.S. #1 FLEA MARKET INERT LANDFILL INDUSTRIAL	322447-1201 (NWP-003) CLOSED

Land Applications

LAND APPLICATION *FACILITY NAME*	*PERMIT #* *TYPE*
SPRAYFIELD/TILEFIELD WINDY HILL WWTP	ND0067075 DOMESTIC

Mining Activities

MINING COMPANY *MINE NAME*	*PERMIT #* *MINERAL*
MARTIN MARIETTA MATERIALS, INC. CAYCE QUARRY	0102-63 GRANITE
BOWERS LEASING COMPANY HUGHES MINE	0637-63 SAND
RICHTEX CORPORATION SOX MINE	0184-63 KAOLIN
CAROLINA MATERIALS CORPORATION I-20 PIT	0787-63 SAND

B&T SAND COMPANY, INC. BLEDSOE MINE	0947-63 SAND
CAROLINA MATERIALS CORPORATION RED BANK PIT	0608-63 SAND, SAND/CLAY
B&T SAND COMPANY, INC. HWY 6 MINE	0741-63 SAND
LEXINGTON COUNTY RED BANK PIT	0505-63 SAND, SAND/CLAY
B&T SAND COMPANY, INC. EDMUND MINE	0958-63 SAND
COLUMBIA SILICA SAND, INC. TINDAL MINE	0535-63 SAND
US SILICA COLUMBIA MINE	0150-63 SAND
COLUMBIA SILICA SAND, INC. SHULER MINE #2	0010-63 SAND
B&T SAND COMPANY, INC. NAZARETH	1211-63 SAND/CLAY
WILSON BROTHERS SMITH MINE	0934-63 SAND
FONDREN EARTH EXCAVATION FONDREN SOILS INC. PIT	0817-63 SAND/GRAVEL
FOSTER-DIXIANA SAND COMPANY GASTON MINE	1139-63 SAND

Growth Potential

There is a high potential for growth in this watershed, which contains the Towns of Red Bank, South Congaree, Pineridge, Springdale, Oak Grove, and portions of the Cities of Cayce and West Columbia. The growth is primarily in the form of commercial and residential uses. Expansion of the industrial base is also expected. There are several major highways bisecting the watershed, together with the Columbia Metropolitan Airport and a rail line to aid transportation related growth. Water is available in the urbanized areas and can be easily extended by the Cities of West Columbia and Cayce; however, sewer is not widely available and will require a major investment. Two Notch Road and Old Barnwell wastewater treatment plants (WWTP) (under Lexington County Joint Municipal Water and Sewer Commission) are targeted for elimination under the 208 Plan, with effluent transported to the City of Cayce's WWTP. The construction of the line to Cayce could have the effect of making sewer more readily available.